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| **Contrast-induced nephropathy (CIN) and associated risk factors among patients undergoing Percutaneous Coronary Intervention (PCI): An Observational Study**  |
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| Author:  | Kushalkumar H Gohel, Cinosh Mathew, Ria Anjaria, Vinas Ambaliya, Helly Bhatt, Rajesh Hadia  |
| Abstract:  | Contrast induced nephropathy (CIN) is a complication which occurs in patients undergoing Percutaneous Coronary Intervention (PCI). If left untreated, it can cause renal failure. This observational study was designed to assess the incidence of CIN and its association with risk factors.Prospective observational study was conducted with a sample size of 100 participants. Patients undergoing PCI between age 20-70 years with normal renal parameters were included and those with pre-existing renal disease were excluded. Serum creatinine (SCr) was considered as a prime laboratory parameter which was measured before and after PCI procedure. Statistical tests at 90% CI were applied to find out the association between pre- and post- laboratory parameters. Overall incidence of CIN was found to be 10% in the study population. Mean age of all patients enrolled was 55.25 ± 10.1 years. Patients having diabetes were found to be more prone towards CIN. Baseline SCr value in CIN group was 0.92 ± 0.3 mg/dL and post-procedural (72 Hr) creatinine level was 1.27 ± 0.4 mg/dL considering it as statistically significant (P < 0.05) but not clinically. The mean difference in CrCL with baseline and 72 hours was found to be 23.38 mL/min in CIN patients which was also statistically significant (P < 0.05). Patient’s medical history, pre-procedural creatinine levels, nature and volume of contrast media could serve as independent predictors of CIN. Prior assessment of these factors could prevent or identify the patients at a risk of developing CIN.  |
| Keyword:  | Percutaneous coronary intervention, Contrast induced nephropathy, Serum creatinine, Contrast media, Creatinine clearance  |
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